CLAIMS

WHAT IS CLAIMED IS:

Sub A2

1. An computer apparatus capable of assisting a user in decision-making in respect of a selected domain, comprising:

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(a)   one or more input interfaces capable of receiving input data representing current information about conditions in a domain;

(b)   one or more memories for storing a plurality of items of data about said domain and also items of data from a database representing information about the domain and information external to the domain;

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(c)   a decision processor capable of generating output data representing a choice, in accordance with its programmed algorithms, axioms and rules, based on data from said memory and from said input interface(s);

(d)   a storage device for storing an operator system algorithm and data;

(e)   a computer programmed to compute said operator system algorithm;

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(f)   one or more user interfaces that enable a user to interact with said decision processor; wherein said user interface may comprise a said input interface;

(g)   a connection bus capable of effecting connections among the input interface; the memorie(s),the decision processor(s) and user interface(s); wherein said user interface permits a user to select selectable data and a

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selectable operator system algorithm, one or more selectable domains, selectable axioms and selectable rules; and wherein said decision processor is capable of generating output data based on said selections made.

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2. The apparatus as in claim 1 further comprising:

(a)   an operator system algorithm;

(b)   said operator system algorithm with recursive capability;

(c)   said operator system algorithm with feedback capability;

(d)   said operator system algorithm with capacity to self-modify its operators;

(e)   said operator system with capacity to follow a set of rules;

(f)   a set of axioms particular to an area of application of said algorithm;

(g)   a set of rules particular to a user.

3. The apparatus as in claim 2 further comprising:

(a)   mapped patent information;

(b)   mapped technology literature information;

(c)   a built technology landscape;

(d)   a built competitive rights landscape;

(e)   multiple search results;

(f)   cross-tabulations of frequencies;

(g)   inferences from general intellectual asset strategy.

4. The apparatus as in claim 2 further comprising:

(a)   an identify/select-raw-data operator which can select patents;

(b)   a define-terms operator; wherein said operator is applied to output from said identify/select-raw-data operator;

(c)   an interrelate-selected-data operator; wherein said operator is applied to output from said define-terms operator;

(d)   a score-cells operator; wherein said operator is applied to the output from said interrelate-selected-data operator;

(e)   an analyze/score-company-positions operator; wherein said operator is applied to the output of the score-cells operator.

5. The apparatus as in claim 4 further comprising:

(a) an analyze-results-in-terms-of potential-actions operator; wherein said operator is applied to the output of an analyze/score-company-positions operator.

6. The apparatus as in claim 5 further comprising:

(a) an evaluate-other-considerations-operator; wherein said operator is applied to the output of an analyze-results-in-terms-of potential-actions operator.

7. The apparatus as in claim 6 further comprising:

(a) a first feedback operator; wherein said first operator is applied to the output of the interrelate-selected-data operator to adjust search terms to be narrower or broader in selecting raw data.

8. The apparatus as in claim 7 further comprising:

(a) a second feedback operator; wherein said second operator is applied to the output of both the evaluate-other-considerations operator and the evaluate-other-considerations operator so as to refine results-and-investigate-alternative-actions.

9. The apparatus as in claim 9 further comprising:

(a) a first set of defined search terms for searching patent text technical literature;

(b) patents and technical articles identified by identification number and year of issue, for patents, and year of publication for technical articles; wherein said patents and technical articles found which contained text with defined search terms;

(c) a second set of defined search terms; wherein said terms are applied to text of patents and technical articles already identified by first set of search terms so as to form a two-dimensional matrix;

(d) various sub-scores and scores and sub-indices and indices calculated from content of said matrix;

(e) at least two assignees with at least one of said scores or indices; wherein said scores of each assignee can be compared.

10. The apparatus as in claim 9 further comprising:

(a) hits defined as the number of cells in which a patent appears;

(b) weighted hits defined as the sum, over the cells, of the quantity: the number of patents in a cell times the weight assigned to that cell;

(c) weighted action defined as the sum, over a search term axis, of the number of search terms rows, or columns, in which a patent appears, where the number of patents appearing in said row, or said column, has been multiplied by a weighting factor for that search term row, or column.

11. The apparatus as in claim 10 further comprising:

(a) dominance defined as a measure of the percentage of patents, overall, and in recent years assigned to the top 10% of assignees;

(b) recent dominance defined as a measure of the percentage of recent patents, in the last two years, assigned to the top 10% of assignees;.

(c) innovation is defined as a measure of recent patent activity for issued and applied patents in a cell;

(d) issued innovation factor is a measure of recent patent activity for issued patents in a cell;

(e) applied innovation factor is a measure of recent patent activity for applied patents in a cell;

(f) predictive innovation is the difference between applied and issued innovation;

(g) predictive innovation factor –1 is defined as:
Innovation Factor $1 = (A / ([B + C] / 2))$;

(h) predictive innovation factor –4 is defined as: Innov. Fct. $4 = (1/21)\{6(A-B)/B + 5(B-C)/C + 4(C-D)/D + 3(D-E)/E + 2(E-F)/F+1(F-G)/G$.

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12. The apparatus as in claim 11 further comprising:

(a)   average dominance (AvDom) defined as AvDom = ½ (dominance quartile + recent dominance quartile);

(b)   average innovation (AvInn) defined as AvInn = ½ (issued innovation quartile + applied innovation quartile);

(c)   PredInn is defined as a predictive innovation quartile, for a calculated predictive innovation.

13. The apparatus as in claim 12 further comprising:

(a)   cell selection index (CSI) defined as: CSI = (AvDom)•(Av Inn)•(PredInn);

(b)   assignee composite score(ACS) defined as: ACS = H1 •CSI

where the H1 factor is multiplied by the Cell Selection Index, CSI, and where:

H1 = (hits in field/patents in field) • patents in cell +

(recent hits in field/recent patents in field) • recent patents in cell.

14. The apparatus as in claim 13 further comprising:

(a)   assignee field index (AFI) defined as: AFI = H• PerCentAHP • Aver.,

where:

H = ½ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

Where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

And where: Aver. = Average (ACI x CSI) across the Technology Field = (Sum of each (ACI for the given Assignee in each cell in the Technology Field x CSI of the respective cell)) / (Total Number of Cells in the Technology Field);

standardized assignee field index(sAFI) defined as: sAFI =AFI • Standardizing Factor

where: Standardizing Factor = 100 / Max(AFI).

15. The apparatus as in claim 14 further comprising:

(a) assignee cell index (ACI) defined as: ACI = ½{AvPCPinCell +AvPCRPinCell}• [(ACIsI + 100) + (ACAppI + 100)]/ 200 • 1000,

where:

AvPCPinCell = Percentage of Patents in a Cell held by an Assignee,

AvPCRPinCell = Percentage of Recent Patents in a Cell held by an Assignee),

and where:

Percentage of Patents in a Cell held by an Assignee = (An Assignee's Patents in a Cell / Total Patents in a Cell),

Percentage of Recent Patents in a Cell held by an Assignee = (An Assignee's Recent Patents in a Cell / Total Recent Patents in a Cell),

and where:

ACIsI = Assignee Cell Issued Innovation,

ACAppI = Assignee Cell Applied Innovation,

where:

Assignee Cell Issued Innovation = ACIsI = (1/21){ [A-B]/B • 6 + [B-C]/C • 5 + [C-D]/D • 4 + [D-E]/E • 3 + [E-F]/F • 2 + [F-G]/G • 1}

where:

A = the number of patents issued within one year of the last patent issued in the data set; B = the number of patents issued more than one year but less than two years prior to the issuing of last patent in the data set; C = the number of patents issued more than two years but less than three years prior to the issuing of last patent in the data set; D = the number of patents issued more than three years but less than four years prior to the issuing of last patent in the data set; E = the number of patents issued more than four years but less than five years prior to the issuing of last patent in the data

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set; F = the number of patents issued more than five years but less than six years prior to the issuing of last patent in the data set; G = the number of patents issued more than six years but less than seven years prior to the issuing of last patent in the data set;

where:

Assignee Cell Applied Innovation = ACAppI = $(1/21)\{$ [A-B]/B • 6 + [B-C]/C • 5 + [C-D]/D • 4 + [D-E]/E • 3 + [E-F]/F • 2 + [F-G]/G • 1$\}$,

where:

A = the number of patents applied within one year of the last patent issued in the data set; B = the number of patents applied more than one year but less than two years prior to the issuing of last patent in the data issuing set; C = the number of patents applied more than two years but less than three years prior to the issuing of last patent in the data set; D = the number of patents issued applied more than three years but less than four years prior to the issuing of last patent in the data set; E = the number of patents applied more than four years but less than five years prior to the issuing of last patent in the data set; F = the number of patents applied more than five years but less than six years prior to the issuing of last patent in the data set; G = the number of patents applied more than six years but less than seven years prior to the issuing of last patent in the data set;

(b)   standardized assignee cell index (sACI) defined as:

sACI = ACI • Standardizing Factor

where:

Standardizing Factor = 100 / Max (ACI).

16. The apparatus as in claim 15 further comprising:

(a)   calculated hits, weighted hits, weighted action;

(b)   calculated investment, dominance, recent dominance, issued innovation factor, applied innovation factor, predictive innovation factor −1, innovation factor-4;

(c)   calculated average dominance, average innovation;

(d)   calculated cell selection index, assignee composite score;

(e)   calculated assignee field index, standardized assignee field index;

(f)   calculated assignee cell index and standardized assignee cell index;

(g)   at least one of said scores or indices for comparison of different assignees.

17. The apparatus as in claims 11, or 12 or 13 or 14 or 15 further comprising:

(a)   a cluster wherein said cluster is a group of cells are related by having one or more of same patents appearing in each of said cluster's cells;

(b)   a required level of said one or more number of patents in said cluster's cells, in order to define said cluster, is specifiable by a user;

(c)   a cluster may be determined by the arbitrary designation of cells by a user of said designated cells as belonging to a cluster.

18. A method of operating a computer apparatus capable of assisting a user in decision making in respect of a selected domain application, comprising the steps of:

(a)   generating data representing a candidate choice from data representing a pool of potential candidate choices utilizing predefined data, axioms, rules, operator algorithm system;

(b)   displaying graphical and alphanumeric output from the generated data;

(c)   evaluating output results;

(d)   readjusting internal parameters or algorithms by the user, as user requires;

(e)   repeating the data generation and data output stages until output data satisfies user.

19. A method for a making decision aid comprising the steps of:

(a)   utilizing an operator system algorithm;

(b)   incorporating into said operator system algorithm recursive capability;

(c)   incorporating into said operator system algorithm feedback capability;

(d)   including in said operator system algorithm capacity to self-modify its operators;

(e)   incorporating capability into said operator system to follow a set of rules;

(f)   utilizing a set of axioms particular to an area of application of said algorithm;

(g)   utilizing a set of rules particular to a user.

20.   A method for a decision aid comprising the steps of:

(a)   utilizing an operator system algorithm;

(b)   including in said operator system algorithm capacity to self-modify its operators;

(c)   utilizing a set of axioms particular to an area of application of said algorithm.

21.   The method as in claim 19 further comprising the step of:

(a) incorporating into said operator system algorithm recursive capability.

22.   The method as in claim 19 further comprising the step of:

(a)   incorporating into said operator system algorithm feedback capability.

23.   The method as in claim 19 further comprising the step of:

(a)   incorporating capability into said operator system to follow a set of rules.

24.   The method as in claim 22 further comprising the step of:

(a)   utilizing a set of rules particular to a user.

25.   A method for making a decision aid comprising the steps of:

(a)   utilizing an operator system algorithm;

(b)   utilizing an operator system algorithm;

(c)   incorporating capability into said operator system to follow a set of rules;

(d)   utilizing a set of axioms particular to an area of application of said algorithm;

(e)   utilizing a set of rules particular to a user.

26. The method as in claim 24 further comprising the step of:

(a)   incorporating into said operator system algorithm recursive capability.

27. The method as in claim 24 further comprising the step of:

(a)   incorporating into said operator system algorithm feedback capability.

28. The method as in claim 24 further comprising the step of:

(a)   including in said operator system algorithm capacity to self-modify its operators.

29. A method for performing multi-term frequency analysis comprising the steps of:

(a)   mapping patent information;

(b)   mapping technology information;

(c)   building a technology landscape;

(d)   building a competitive rights landscape;

(e)   utilizing multiple search results;

(f)   utilizing cross-tabulations of frequencies;

(g)   utilizing inferences from general intellectual asset strategy.

30. A method for performing multi-term frequency analysis comprising the steps of:

(a)   applying an identify/select-raw-data operator in order to select patents;

(b)   applying a define-terms operator to applied to output from said identify/select-raw-data operator;

(c)   applying an interrelate-selected-data operator to output from said define-terms operator;

(d)   applying a score-cells operator to output from interrelate-selected-data operator;

(e)   applying an analyze/score-company-positions operator to the output of the score-cells operator.

31.   The method as in claim 29 further comprising the step of:

(a)   applying an analyze-results-in-terms-of potential-actions operator to the output of an analyze/score-company-positions operator.

32.   The method as in claim 30 further comprising the step of:

(a)   applying an evaluate-other-considerations-operator to the output of an analyze-results-in-terms-of potential-actions operator.

33.   The method as in claim 31 further comprising the step of:

(a)   applying a feedback operator to the output of the interrelate-selected-data operator to adjust search terms to be narrower or broader in selecting raw data.

34.   The method as in claim 31 further comprising the step of:

(a)   applying a feedback operator to the output of both the evaluate-other-considerations operator and the evaluate-other-considerations operator to refine results-and-investigate-alternative-actions.

35.   A method for analysis for patents and technical literature comprising the steps of:

(a)   defining a first set of search terms for searching patent text technical literature;

(b)   applying said search terms to find patents and technical articles by identification number and year of issue, for patents, and year of publication for technical articles;

(c) applying a second set of search terms to patents and technical articles already identified by first set of search terms so as to form a two-dimensional matrix;

(d) defining various sub-scores and scores and sub-indices and indices for said matrix;

(e) calculating various sub-scores and scores and sub-indices and indices for said matrix;

(f) utilizing at least one of said scores or indices for comparison of different assignees.

36. The method as in claim 34 further comprising the steps of:

(a) defining hits as the number of cells in which a patent appears;

(b) defining weighted hits as the sum, over the cells, of the quantity: the number of patents in a cell times the weight assigned to that cell;

(c) defining weighted action as the sum, over a search term axis, of the number of search terms rows, or columns, in which a patent appears, where the number of patents appearing in said row, or said column, has been multiplied by a weighting factor for that search term row, or column.

37. The method as in claim 34 further comprising the steps of:

(a) defining dominance as a measure of the percentage of patents, overall, assigned to the top 10% of assignees;

(b) defining dominance as a measure of the percentage of recent patents, in the last two years, assigned to the top 10% of assignees;.

(c) defining innovation as a measure of recent patent activity for issued and applied patents in a cell;

(d) defining issued innovation factor as a measure of recent patent activity for issued patents in a cell;

(e) defining applied innovation factor as a measure of recent patent activity for applied patents in a cell;

(f)   defining predictive innovation as the difference between applied and issued innovation;

(g)   defining innovation factor –1 as:

Innovation Factor 1 = $(A / ([B + C] / 2))$;

(h)   defining innovation factor –4 as:

Innov. Fct. 4 = $(1/21)\{6(A\text{-}B)/B + 5(B\text{-}C)/C + 4(C\text{-}D)/D + 3(D\text{-}E)/E + 2(E\text{-}F)/F + 1(F\text{-}G)/G\}$.

38.   The method as in claim 35 further comprising the steps of:

(a)   defining average dominance (AvDom) as:

AvDom = ½ (dominance quartile + recent dominance quartile);

(b)   defining average innovation (AvInn) as:

AvInn = ½ (issued innovation quartile + applied innovation quartile);

(c)   PredInn is defined as a predictive innovation quartile, for a calculated predictive innovation.

39.   The method as in claim 36 further comprising the steps of:

(a)   defining cell selection index (CSI) as:

CSI = (AvDom)•(Av Inn)•(PredInn);

(b)   defining assignee composite score (ACS) as:

ACS = H1 • CSI

where the H1 factor is multiplied by the Cell Selection Index, CSI, and where:

H1 = (hits in field/patents in field) • patents in cell +

(recent hits in field/recent patents in field) • recent patents in cell.

40.   The method as in claim 37 further comprising the steps of:

(a)   defining assignee field index (AFI) as:

AFI = H1• PerCentAHR • Aver.,

where:

H1 = ½ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

and where:

Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI for the given Assignee in each cell in the Technology Field x CSI of the respective cell)) / (Total Number of Cells in the Technology Field);

(b)   defining standardized assignee field index (sAFI) as:

sAFI = AFI • Standardizing Factor

where:

Standardizing Factor = 100 / Max(AFI).

41.   The method as in claim 38 further comprising the steps of:

(a)   defining assignee cell index (ACI) as:

ACI = ½{AvPCPinCell + AvPCRPinCell} • [(ACIsI + 100) + (ACAppI + 100)]/ 200 • 1000,

where:

AvPCPinCell = Percentage of Patents in a Cell held by an Assignee,

AvPCRPinCell = Percentage of Recent Patents in a Cell held by an Assignee),

and where:

Percentage of Patents in a Cell held by an Assignee = (An Assignee's Patents in a Cell / Total Patents in a Cell),

Percentage of Recent Patents in a Cell held by an Assignee = (An Assignee's Recent Patents in a Cell / Total Recent Patents in a Cell),

and where:

ACIsI = Assignee Cell Issued Innovation,

ACAppI = Assignee Cell Applied Innovation,

where:

Assignee Cell Issued Innovation = ACIsI = (1/21){ [A-B]/B • 6 + [B-C]/C • 5 + [C-D]/D • 4 + [D-E]/E • 3 + [E-F]/F • 2 + [F-G]/G • 1}

where:

A = the number of patents issued within one year of the last patent issued in the data set; B = the number of patents issued more than one year but less than two years prior to the issuing of last patent in the data set; C = the number of patents issued more than two years but less than three years prior to the issuing of last patent in the data set; D = the number of patents issued more than three years but less than four years prior to the issuing of last patent in the data set; E = the number of patents issued more than four years but less than five years prior to the issuing of last patent in the data set; F = the number of patents issued more than five years but less than six years prior to the issuing of last patent in the data set; G = the number of patents issued more than six years but less than seven years prior to the issuing of last patent in the data set;

where:

Assignee Cell Applied Innovation = ACAppI = (1/21){ [A-B]/B • 6 + [B-C]/C • 5 + [C-D]/D • 4 + [D-E]/E • 3 + [E-F]/F • 2 + [F-G]/G • 1},

where:

A = the number of patents applied within one year of the last patent issued in the data set; B = the number of patents applied more than one year but less than two years prior to the issuing of last patent in the data issuing set; C = the number of patents applied more than two years but less than three years prior to the issuing of last patent in the data set; D = the number of patents issued applied more than three years but less than four years prior to the issuing of last patent in the data set; E = the number of patents applied more than four years but less than five years prior to the issuing of last patent in the data set; F = the number of patents applied more than five years but less than six years prior to the issuing of last patent in the data

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set; G = the number of patents applied more than six years but less than
seven years prior to the issuing of last patent in the data set;

(b) defining standardized assignee cell index (sACI) as:

sACI = ACI • Standardizing Factor

where:

Standardizing Factor = 100 / Max (ACI).

42. The method as in claim 39 further comprising the steps of:

(a)   calculating hits, weighted hits, weighted action;

(b)   calculating investment, dominance, recent dominance, issued innovation
factor, applied innovation factor, innovation factor –1, innovation factor-4;

(c)   calculating average dominance, average innovation;

(d)   calculating cell selection index, assignee composite score;

(e)   calculating assignee field index, standardized assignee field index;

(f)   calculating assignee cell index and standardized assignee cell index;

(g)   utilizing at least one of said scores or indices for comparison of different
assignees.

43. The method as in claims 35 or 36 or 37 or 38 or 39 further comprising:

(a)   designating a cluster wherein said cluster is a group of cells are related by
having one or more of same patents appearing in each of said cluster's
cells;

(b)   specifying a required, by the user, level of said one or more number of
patents in said cluster's cells, in order to define said cluster;

(c)   determining a cluster by the arbitrary designation of cells by a user of said
designated cells as belonging to a cluster.

44. A computer-based a decision-aid system, comprising:

(a)   an operator system algorithm;

(b)   said operator system algorithm with recursive capability;

(c)   said operator system algorithm with feedback capability;

(d) said operator system algorithm with capacity to self-modify its operators;

(e) said operator system with capacity to follow a set of rules;

(f) a set of axioms particular to an area of application of said algorithm;

(g) a set of rules particular to a user;

5 (h) a computer programmed to compute said operator system algorithm;

(i) a storage device for storing operator system algorithm and data.

45. A computer-based decision-aid system comprising:

(a) an operator system algorithm;

10 (b) said operator system algorithm with capacity to self-modify its operators;

(c) a set of axioms particular to an area of application of said algorithm;

(d) a computer.

46. The computer-based decision-aid system as in claim 43 further comprising:

15 (a) said operator system algorithm with recursive capability;

(b) a computer.

47. The computer-based decision-aid system as in claim 43 further comprising:

(a) said operator system algorithm with feedback capability;

20 (b) a computer.

48. The computer-based decision-aid system as in claim 43 further comprising

(a) said operator system programmed to follow a set of rules;

(b) a computer.

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49. The computer-based decision-aid system as in claim 46 further comprising:

(a) said set of rules particular to a user;

(b) a computer.

30 50. A computer-based decision-aid system comprising:

(a) an operator system algorithm;

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(b)   said operator system with capability to be programmed to follow a set of axioms;

(c)   said operator system with capability to be programmed to follow a set of rules;

(d)   a set of axioms particular to an area of application of said algorithm;

(e)   a set of rules particular to a user;

(f)   a computer.

51. The computer-based decision-aid system as in claim 48 further comprising:

(a)   said operator system algorithm with recursive capability;

(b)   a computer.

52. The computer-based decision-aid system as in claim 49 further comprising:

(a)   said operator system algorithm with feedback capability;

(b)   a computer.

53. The computer-based decision-aid system as in claim 50 further comprising:

(a)   said operator system algorithm with capacity to self-modify its operators;

(b)   a computer.

54. A computer-based multi-term frequency analysis system comprising:

(a)   mapped patent information;

(b)   mapped technology literature information;

(c)   a built technology landscape;

(d)   a built competitive rights landscape;

(e)   multiple search results;

(f)   cross-tabulations of frequencies;

(g)   inferences from general intellectual asset strategy;

(h)   a computer.

55. A computer-based multi-term frequency analysis system comprising:

(a)   an identify/select-raw-data operator which can select patents;

(b)   a define-terms operator; wherein said operator is applied to output from said identify/select-raw-data operator;

(c)   an interrelate-selected-data operator; wherein said operator is applied to output from said define-terms operator;

(d)   a score-cells operator; wherein said operator is applied to the output from said interrelate-selected-data operator;

(e)   an analyze/score-company-positions operator; wherein said operator is applied to the output of the score-cells operator;

(f)   a computer.

56. The system as in claim 53 further comprising:

(a)   an analyze-results-in-terms-of potential-actions operator; wherein said operator is applied to the output of an analyze/score-company-positions operator;

(b)   a computer.

57. The system as in claim 54 further comprising:

(a)   an evaluate-other-considerations-operator; wherein said operator is applied to the output of an analyze-results-in-terms-of potential-actions operator;

(b)   a computer.

58. The system as in claim 55 further comprising:

(a)   a first feedback operator; wherein said first operator is applied to the output of the interrelate-selected-data operator to adjust search terms to be narrower or broader in selecting raw data;

(b)   a computer.

59. The system as in claim 56 further comprising:

(a)   a second feedback operator; wherein said second operator is applied to the output of both the evaluate-other-considerations operator and the

evaluate-other-considerations operator so as to refine results-and-investigate-alternative-actions;

(b)   a computer.

60. A computer-based system for analysis of patents and technical literature comprising:

(a)   a first set of defined search terms for searching patent text technical literature;

(b)   patents and technical articles identified by identification number and year of issue, for patents, and year of publication for technical articles; wherein said patents and technical articles found which contained text with defined search terms;

(c)   a second set of defined search terms; wherein said terms are applied to text of patents and technical articles already identified by first set of search terms so as to form a two-dimensional matrix;

(d)   various sub-scores and scores and sub-indices and indices calculated from content of said matrix;

(e)   at least two assignees with at least one of said scores or indices; wherein said scores of each assignee can be compared;

(f)   a computer.

61. The system as in claim 58 further comprising:

(a)   hits defined as the number of cells in which a patent appears;

(b)   weighted hits defined as the sum, over the cells, of the quantity: the number of patents in a cell times the weight assigned to that cell;

(c)   weighted action defined as the sum, over a search term axis, of the number of search terms rows, or columns, in which a patent appears, where the number of patents appearing in said row, or said column, has been multiplied by a weighting factor for that search term row, or column;

(d)   a computer.

62. The system as in claim 59 further comprising:

(a) dominance defined as a measure of the percentage of patents, overall, and in recent years assigned to the top 10% of assignees;

(b) recent dominance defined as a measure of the percentage of recent patents, in the last two years, assigned to the top 10% of assignees;.

(c) innovation is defined as a measure of recent patent activity for issued and applied patents in a cell;

(d) issued innovation factor is a measure of recent patent activity for issued patents in a cell;

(e) applied innovation factor is a measure of recent patent activity for applied patents in a cell;

(f) predictive innovation is the difference between applied and issued innovation;

(g) predictive innovation factor –1 is defined as:

Innovation Factor $1 = (A / ([B + C] / 2))$;

(h) predictive innovation factor –4 is defined as: Innov. Fct. $4 = (1/2)\{6(A-B)/B + 5(B-C)/C + 4(C-D)/D + 3(D-E)/E + 2(E-F)/F+1(F-G)/G$;

(h) a computer.

63. The system as in claim 60 further comprising:

(a) average dominance (AvDom) defined as AvDom $= \frac{1}{2}$ (dominance quartile + recent dominance quartile);

(b) average innovation (AvInn) defined as AvInn $= \frac{1}{2}$ (issued innovation quartile + applied innovation quartile);

(c) PredInn is defined as a predictive innovation quartile, for a calculated predictive innovation;

(d) a computer.

64. The system as in claim 61 further comprising:

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(a)   cell selection index (CSI) defined as: $CSI = (AvDom) \cdot (AvInn) \cdot (PredInn)$;

(b)   assignee composite score(ACS) defined as: $ACS = H1 \cdot CSI$

where the H1 factor is multiplied by the Cell Selection Index, CSI, and where:

$H1 = $ (hits in field/patents in field) • patents in cell +

(recent hits in field/recent patents in field) • recent patents in cell;

(c)   a computer.

65.   The system as in claim 62 further comprising:

(a)   assignee field index (AFI) defined as: $AFI = H \cdot PerCentAHP \cdot Aver.$, where:

$H = \frac{1}{2}$ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

Where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one

Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

And where: Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI for the given Assignee in each cell in the Technology Field x CSI of the respective cell)) / (Total Number of Cells in the Technology Field);

(b)   standardized assignee field index(sAFI) defined as: $sAFI = AFI \cdot$ Standardizing Factor

where: Standardizing Factor = $100 / Max(AFI)$;

(c)   a computer.

66.   The system as in claim 63 further comprising:

(a)   assignee cell index (ACI) defined as: $ACI = \frac{1}{2}\{AvPCPinCell + AvPCRPinCell\} \cdot [(ACIsI + 100) + (ACAppI + 100)]/ 200 \cdot 1000$, where:

AvPCPinCell = Percentage of Patents in a Cell held by an Assignee,

AvPCRPinCell = Percentage of Recent Patents in a Cell held by an Assignee),

and where:

Percentage of Patents in a Cell held by an Assignee = (An Assignee's Patents in a Cell / Total Patents in a Cell),

Percentage of Recent Patents in a Cell held by an Assignee = (An Assignee's Recent Patents in a Cell / Total Recent Patents in a Cell),

and where:

ACIsI = Assignee Cell Issued Innovation,

ACAppI = Assignee Cell Applied Innovation,

where:

Assignee Cell Issued Innovation = ACIsI = $(1/21)\{$ [A-B]/B • 6 + [B-C]/C • 5 + [C-D]/D • 4 + [D-E]/E • 3 + [E-F]/F • 2 + [F-G]/G • 1$\}$

where:

A = the number of patents issued within one year of the last patent issued in the data set; B = the number of patents issued more than one year but less than two years prior to the issuing of last patent in the data set; C = the number of patents issued more than two years but less than three years prior to the issuing of last patent in the data set; D = the number of patents issued more than three years but less than four years prior to the issuing of last patent in the data set; E = the number of patents issued more than four years but less than five years prior to the issuing of last patent in the data set; F = the number of patents issued more than five years but less than six years prior to the issuing of last patent in the data set; G = the number of patents issued more than six years but less than seven years prior to the issuing of last patent in the data set;

where:

Assignee Cell Applied Innovation = ACAppI = $(1/21)\{$ [A-B]/B • 6 + [B-C]/C • 5 + [C-D]/D • 4 + [D-E]/E • 3 + [E-F]/F • 2 + [F-G]/G • 1$\}$,

where:

A = the number of patents applied within one year of the last patent issued in the data set; B = the number of patents applied more than one year but less than two years prior to the issuing of last patent in the data issuing set; C = the number of patents applied more than two years but less than three years prior to the issuing of last patent in the data set; D = the number of patents issued applied more than three years but less than four years prior to the issuing of last patent in the data set; E = the number of patents applied more than four years but less than five years prior to the issuing of last patent in the data set; F = the number of patents applied more than five years but less than six years prior to the issuing of last patent in the data set; G = the number of patents applied more than six years but less than seven years prior to the issuing of last patent in the data set;

(b)   standardized assignee cell index (sACI) defined as:

sACI = ACI • Standardizing Factor

where: Standardizing Factor = 100 / Max (ACI);

(c)   a computer.

67.   The system as in claim 64 further comprising:

(a)   calculating hits, weighted hits, weighted action;

(b)   calculating investment, dominance, recent dominance, issued innovation factor, applied innovation factor, predictive innovation factor –1, innovation factor-4;

(c)   calculating average dominance, average innovation;

(d)   calculating cell selection index, assignee composite score;

(e)   calculating assignee field index, standardized assignee field index;

(f)   calculating assignee cell index and standardized assignee cell index;

(g)   utilizing at least one of said scores or indices for comparison of different assignees;

(h)   a computer.

68. The system as in claim 60 or 61 or 62 or 63 or 64 further comprising::

    (a)   designating a cluster wherein said cluster is a group of cells are related by having one or more of same patents appearing in each of said cluster's cells;

    (b)   specifying a required, by the user, level of said one or more number of patents in said cluster's cells, in order to define said cluster;

    (c)   determining a cluster by the arbitrary designation of cells by a user of said designated cells as belonging to a cluster.

69. 67. The system as in claim 59 further comprising:

    (a)   a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

    (b)   a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

    (c)   further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

70. 68. The system as in claim 56 further comprising:

    a)   a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

    (b)   a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

    (c)   further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

69. The method as in claim 34 further comprising the steps of:

a) utilizing a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained;

(b) utilizing a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c) iterating further , as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

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70. The apparatus as in claim 10 further comprising:

a) a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

(b) a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c) further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.